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coupling to a relief object in proximity to said single electrode electroluminescent device so that current coupled from said current source to said relief object is a function of a surface structure of said relief object, whereby more intense light is generated by areas of said electroluminescent device strongly coupled to said current from said relief object and less intense light is generated by areas of said electroluminescent device weakly coupled to said current from said relief object to form an image of the relief object; and

a one-to-one sensor array located such that said generated light is sensed by said one-to-one sensor array.

63. The system of Claim 62, wherein the one-to-one sensor array is in direct contact with the single electrode electroluminescent device, and located on a side of the single electrode electroluminescent device opposite the relief object.

REMARKS

The August 3, 1999 Office Action was based upon pending Claims 1-16 and 18-46. Claims 9 - 12, and 15 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which is regarded as the invention. Claims 23 - 37 and 44 were rejected under 35 U.S.C. § 112, first paragraph, for being not properly supported by the specification as filed, and under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which is regarded as the invention. Claims 1 and 38 were rejected under 35 U.S.C. § 102(b) as being anticipated by Derwent abstracts XP-002080114 and XP-002080115. Claims 1, 5, 7, 38 and 40 were rejected under 35 U.S.C. § 102(b) as being anticipated by Abstract of Japanese patent 02126381. Claims 1 - 16, 18 - 22, and 38 - 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Derwent abstracts XP-002080114 and XP-002080115 and the Abstract of Japanese patent 02126381. Claims 45 and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Gaffney. In view of the amendments and the following comments, Applicants respectfully request reconsideration and allowance of the amended claims.

Rejections under 35 U.S.C. § 112, first and second paragraphs:

Claims 9 - 12, and 15 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which is regarded

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as the invention. Claims 9 – 12 and 15 have been cancelled. Elements of these claims are included in new Claim 49 as set forth below.

Claim 23 was rejected under 35 U.S.C. § 112, first paragraph, for not being properly supported by the specification as filed, and under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which is regarded as the invention. Claim 23, now cancelled, has been rewritten as new independent **Claim 47** including the features of cancelled Claims 1 and 2 as discussed below. In new Claim 47, as well as in other new claims, the single electrode electroluminescent device is referred to as having one electrode, and another electrode can be brought into contact with the single electrode electroluminescent device.

As Claim 23, **Claims 24 – 37** were rejected under 35 U.S.C. § 112, first and second paragraphs. Applicants respectfully submit that Claims 24-37 are believed to be allowable under 35 U.S.C. § 112, first and second paragraphs. The Examiner stated that the claims are contradictory because they call for a single electrode device having two electrodes. Applicants respectfully submit that it is the claimed system that has two electrodes, not the single electrode electroluminescent device. Independent Claim 24 refers to a system for generating an image of a relief object. The system includes, among others, a flexible electrode and a single electrode of a single electroluminescent device. The single electrode is the second electrode of the system. An embodiment of the claimed system having a flexible electrode is described with reference to Figure 2, for example, on page 15, lines 2-22.

Likewise, Claim 44 was rejected under 35 U.S.C. § 112, first and second paragraphs. Claim 44, now cancelled, has been rewritten as new independent **Claim 48** which includes elements of cancelled Claim 38.

Since the Examiner has not rejected Claims 23, 24-37, and 44 under 35 U.S.C. § 102(b) or under 35 U.S.C. § 103(a), Claims 24-37, and new Claims 47 and 48 are believed to be allowable. Applicants herewith request such allowance.

Rejections under 35 U.S.C. § 102(b):

Claims 1 and 38 were rejected under 35 U.S.C. § 102(b) as being anticipated by Derwent abstracts XP-002080114 and XP-002080115. Claims 1, 5, 7, 38 and 40 were rejected under 35 U.S.C. § 102(b) as being anticipated by Abstract of Japanese patent 02126381. These claims have been

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cancelled to expedite the examination procedure. Applicant reserves the right to prosecute the subject matter of the cancelled claims at a later time.

Claim 38 has been rewritten as new **Claim 48** which includes elements of previous Claim 44. Applicant submits that new Claim 48 is not anticipated under 35 U.S.C. § 102(b) by Derwent abstracts XP-002080114 and XP-002080115 and the Abstract of Japanese patent 02126381 because these references fail to disclose a method for imaging a relief object that includes, among others, the step of locating a variable resistive layer adjacent an exposed surface.

Claim 1 has been rewritten as new independent **Claim 49** which includes elements of Claim 13. Applicants submit that new independent Claim 49 is not anticipated by Derwent abstracts XP-002080114, XP-002080115, and Abstract of Japanese patent 02126381. These references fail to disclose a dielectric layer receiving dispersed light emitting particles. The references also fail to disclose that such a dielectric layer substantially covers the transparent electrode. New dependent **Claims 50-56** further define the system of new Claim 49 and include elements of previous Claims 14, 15, 4-8, respectively. New **Claims 49-56** are, therefore, believed to be allowable in view of the cited references.

Claim 1 has been rewritten as new independent **Claim 57** which includes elements of Claim 18. Applicants submit that new independent Claim 57 is not anticipated by Derwent abstracts XP-002080114, XP-002080115, and Abstract of Japanese patent 02126381. These references fail to disclose a system having a single electrode electroluminescent device having thin, sublimed molecular film. New dependent **Claims 58-61** further define the system of new Claim 57 and include elements of previous Claims 19-22. New **Claims 57-61** are, therefore, believed to be allowable in view of the cited references.

New **Claims 62-63** define a system for generating an image of a relief object. The system includes a single electrode electroluminescent device, an electrical current source, and a one-to-one sensor array located proximate the single electrode electroluminescent device. Applicants submit that new Claims 62-63 are not anticipated by Derwent abstracts XP-002080114, XP-002080115, and Abstract of Japanese patent 02126381. Only Japanese patent 02126381 appears to disclose a system that has a lens and a CCD sensor located below the structure that includes the light emitting layer. Unlike the system of new Claim 62, however, the lens and the CCD sensor do not form a one-to-one sensor array. The references, therefore, fail to disclose a system having a one-to-one sensor array.

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located proximate the single electrode electroluminescent device. New **Claims 62-63** are believed to be allowable in view of the cited references.

Rejections under 35 U.S.C. § 103(a):

Claims 1 – 16, 18 – 22, and 38 – 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Derwent abstracts XP-002080114 and XP-002080115 and the Abstract of Japanese patent 02126381.

Applicants submit that new independent **Claim 49**, which includes elements of Claims 1 and 13, is not obvious over the cited references. New Claim 49 defines a system in which a single electrode electroluminescent device has a dielectric layer that receives dispersed light emitting particles and substantially covers a transparent electrode layer of the electroluminescent device. These references do not disclose such a system because they fail to disclose details of the light emitting layer.

Derwent abstracts XP-002080114, XP-002080115 define the light emitting layer as “luminophore” layer without any further explanation. The Abstract of Japanese patent 02126381 is completely silent about any details of the light emitting layer. Absent any teaching in these references regarding details of the light emitting layer, there is no suggestion or motivation to modify the light emitting layer. Applicants submit that the system of new **Claim 49** is not obvious under 35 U.S.C. § 103(a) in view of the cited references. Likewise, therefrom dependent **Claims 50-56**, which include elements of prior Claims 14, 15, 4-8, are patentable over those references.

Applicants submits that new independent **Claim 57**, which includes elements of Claims 1 and 18, is not obvious over the cited references. New Claim 57 defines a system that has a single electrode organic electroluminescent device having a transparent electrode as an anode. The transparent anode has a thin, sublimed molecular film deposited thereon. As discussed, the cited references do not disclose details of the light emitting layer or any suggestion to modify it. Applicants submit that the system of new **Claim 57** is not obvious under 35 U.S.C. § 103(a) in view of the cited references.

New **Claims 62-63** are not obvious in view of the cited references. These claims define a system for generating an image of a relief object. The system includes a single electrode electroluminescent device, an electrical current source, and a one-to-one sensor array located proximate the single electrode electroluminescent device. The cited references teach away from such a system. That is, Derwent abstracts XP-002080114, XP-002080115 teach to “observe” the

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generated line pattern of the fingerprint. There is no suggestion that would motivate one skilled in the art to position a one-to-one sensor array proximate the light emitting structure.

Although the Abstract of Japanese patent 02126381 appears to disclose an optical sensor system below the light emitting structure, it does not provide any suggestion that would motivate one skilled in the art to substitute the disclosed optical sensor system with a one-to-one sensor. The lens of the optical sensor system transforms the generated image of the fingerprint into an image on the CCD sensor. The Abstract does not disclose the purpose for using the lens, but it appears that the lens is intended to reduce the size of the image the CCD sensor detects to reduce the cost and size of the CCD sensor.

Instead of an image transforming lens and a CCD sensor, the system as defined in new **Claims 62-63** includes a one-to-one sensor array located such that generated light is sensed by one-to-one sensor. The one-to-one sensor array detects the whole, actual size image of the fingerprint. Thus, the invention defined in new **Claims 62-63** is contrary to the teaching disclosed in the Abstract of Japanese patent 02126381, i.e., a one-to-one sensor versus a image transforming lens and sensor system. Advantageously, the system of **Claims 62-63** has a simpler structure and is much thinner than the system of the Abstract of Japanese patent 02126381. New **Claims 62-63** are therefore believed to be patentable under 35 U.S.C. § 103(a) over the cited references. Applicants respectfully request allowance of these claims.

The Examiner rejected Claims 45 and 46 under 35 U.S.C. § 103(a) as being unpatentable over Gaffney. Gaffney discloses a pressure transducer that converts a pressure distribution directly into a visible image. The transducer includes a two-layer structure sandwiched between two electrodes. The intermediate layers include a piezoresistive layer and a light emitting layer. The piezoresistive layer includes material whose resistivity varies as a function of pressure and transfers into varying light output of the light emitting layer.

The piezoresistive layer includes tow resistive layers which are touching, but are not in intimate contact. As the pressure increases, the extent of the contact between the two layers increases and the resistance at the point of increased pressure decreases. The piezoresistive layer may also be formed by pressure sensitive resistive inks applied at an appropriate thickness. Further, the piezoresistive layer may be formed by manganin whose resistivity increases with pressure. Despite of these embodiments of the piezoresistive layer, Gaffney does not disclose or suggest a variable resistive

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layer having conductive particles dispersed through a non-conductive medium as defined in Claims 45 and 45.

Gaffney's pressure transducer is configured for measuring pressure and stress and pressure distributions. In one application, the pressure transducer is configured as a display indicating the numerical pressure value if the pressure is greater than a predetermined value. Gaffney does not disclose or suggest that the pressure transducer could be used as a relief object image generator. Although Gaffney discloses that the pressure transducer has a "higher spatial resolution than the prior art sensor systems" (page 3, last paragraph), Gaffney does not suggest that the spatial resolution would be sufficient for fingerprint imaging. In fact, Applicants submit that the disclosure of Gaffney exclusively teaches to **measure** the pressure and to determine the pressure **distribution**.

Moreover, there is no suggestion to modify the piezoresistive layer of the pressure transducer. The disclosed alternatives work fine to measure the pressure and to determine the pressure distribution. There is no suggestion for additional alternative, nor any suggestion to disperse conductive material in non-conductive material.

The Examiner is urged to avoid the insidious temptation of using hindsight to modify the references in ways shown by the patent. To modify the references, there must be some suggestion to do so, even for such a simple change as turning a prior art device upside down. *See In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995) ("Although a prior art device could have been turned upside down, that did not make the modification obvious unless the prior art fairly suggested the desirability of turning the device upside down." citing *In re Gordon*, 733 F.2d 900, 902, 221 USPQ2d 1125, 1227 (Fed. Cir. 1984)).

The Federal Circuit requires some showing of the source of the motivation other than reasons that find no support in the prior art, and are apparently made up only after reading the patent application and made only to justify modifications to meet the claim requirements. For example, in reversing a rejection of claims to a plastic, pumpkin faced bag, based on two references that allegedly "would have suggested the application of ... facial indicia to the prior art plastic trash bags," the Federal Circuit found there were no findings on the level of skill, the relationship between the fields of the prior art and the claimed matter, or the features of the prior art that would motivate the use of elements from a different field. *In re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999).

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Here, there are also insufficient findings to warrant modifying the prior art to achieve advantages and combinations disclosed only in the patent application, and indeed, there is no motivation or suggestion to modify the prior art other than the claims. Claims 45 and 46 are therefore believed to be patentable under 35 U.S.C. § 103(a) over Gaffney.

In view of the above amendments and remarks, Applicants respectfully request allowance of the application.

Conclusion:

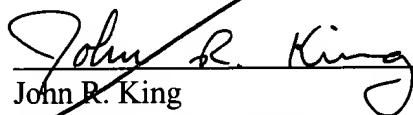
The claims are believed to be in condition for allowance and such allowance is respectfully requested. If the Examiner disagrees in any way, the Examiner is encouraged to call the undersigned to arrange a phone interview to resolve the Examiner's concerns or to resolve any difficulties with the claim language

Respectfully submitted,

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Dated: 2/3/00

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